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## ORIGINAL ARTICLE

# The role of research training during higher medical education in the promotion of academic medicine in the UK

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**Objectives:** To examine the research activities and perceived barriers to research among higher specialist trainees in geriatric medicine and to show how trainees active in research might have a role in assisting their peers in getting started in research.

**Design:** Cross-sectional questionnaire survey on research activities, attitudes to doing research and perceived difficulties in doing research.

**Setting and participants:** Trainee members of the British Geriatrics Society (BGS) in the UK.

**Results:** A total of 122 responses (30% response rate) were received after a single mailing and a follow-up questionnaire to trainees attending the BGS national conference. Although 64% (67/104) of respondents would like to undertake a period of research, many perceived barriers preventing them from planning, funding and executing a research project. Among those who had not undertaken research, the majority (70%, 42/60) indicated that they have no clear idea of a topic to research, 64% (39/61) did not know how to develop an idea and 62% (38/61) indicated that they did not know how to get funding. Trainees motivated to do research were faced with particular difficulties with regards to funding and selection of a project topic.

**Conclusions:** One useful method would be systematically to provide basic information to trainees on how to enter into the early stages of research. This would help to overcome some of the unnecessary uncertainty that many trainees keen to do research seem to have.

There is a general consensus that clinical academic medicine is in crisis, both in the UK and the rest of the world. A growing sense of disconnection between research and clinical practice, plummeting numbers of clinical lecturer posts and closure of clinical academic departments are all signs of the malaise.<sup>1–2</sup> A lack of suitably trained and qualified clinical academic staff has been highlighted as a major factor in this.<sup>3</sup>

In the UK, changes to higher specialist training since it was reformed through the Calman training scheme have coincided with a decrease in the amount of research work done by higher specialist trainees.<sup>4</sup> This decrease has two important ramifications: firstly, the number of clinicians with research skills and research experience is shrinking, which is likely to create a culture of clinical practice less sympathetic to research. Secondly, the pool of clinicians willing and able to commit to a clinical academic career has also shrunk. This is reflected in the dearth of applicants to senior lecturer and professorial posts in the UK.<sup>5</sup>

This situation was foreseen as long ago as 1995, when the House of Lords Select Committee on Science and Technology voiced their concern that the recruitment of clinical academics might become severely compromised, particularly in relation to the changes proposed for specialist medical training and for the organisation of National Health Service research.<sup>6</sup>

Concern has been expressed over the shift from clinical to non-clinical emphasis by universities attempting to maximise their performance in the research assessment exercise.<sup>7</sup> In response to the perceived crisis in academic medicine, the International Campaign to Revitalise Academic Medicine was set up in 2003 to promote academic medicine.<sup>1</sup>

Many of the problems that beset academic medicine in general also affect academic geriatric medicine. Deficiencies in funding, coordination, infrastructure, staffing and training have all been highlighted in the House of Lords Science and

Technology report on research into ageing.<sup>8</sup> It is essential that if UK academic medicine is to meet the burgeoning healthcare needs of our ageing population, there must be proportionate resources applied to basic research on ageing and on the clinical syndromes common in old age. This is a large and complex challenge, which involves scientists and clinicians from many disciplines and backgrounds. Geriatric medicine, as the largest hospital subspecialty in the UK and the specialty provides the bulk of hospital care of the older people, is particularly important in this endeavour. However, as a relatively new discipline, academic geriatric medicine is still very much in the process of development. The problems it faces are arguably more acute than for some other specialties, given the need to build capacity from a low base in such difficult times. Academic geriatric medicine therefore needs to expand substantially.

Academic geriatric medicine has been aware of these problems for several years. The heart of this problem is the lack of clinical academic staff; of particular concern is the small number of trainees with academic training who are aiming to progress to senior lecturer posts and beyond. To deal with the issue at the societal level, the British Geriatrics Society (BGS) has set out a strategy to promote future academic geriatric medicine.<sup>9–10</sup>

The recently published Walport Report attempted to deal with the education needs of those who wish to develop a career in academic medicine within the modernising medical careers framework.<sup>11</sup> Although these recommendations and Modernising Medical Careers training will undoubtedly support the academic medicine career for future trainees, it is unclear whether these activities will promote clinical geriatric research.

As part of a drive to promote academic geriatric medicine, we conducted a national survey among trainee members of

**Abbreviations:** BGS, British Geriatrics Society; SpR, specialist registrar

## Research - Your wants, your needs, the future of your speciality

Dear Colleague,

Please take a few moments to fill out this questionnaire, which aims to give us information on who is interested and active in research, together with the obstacles that you perceive to becoming research active. This will help us to provide the resources and information that we need to successfully participate in research.

Which year of training are you in?

SpR1 ☐ SpR2 ☐ SpR3 ☐ SpR4 ☐ SpR5 ☐ LAS/LAT ☐ SHO3 ☐ Research fellow ☐ Other ☐

Do you have an MD or PhD? MD ☐ PhD ☐ Neither ☐

Are you studying for a higher degree? Yes ☐ No ☐

Would you like to obtain a higher degree? Yes ☐ No ☐

Are you currently involved in research? Yes ☐ No ☐

Have you previously been involved in research? Yes ☐ No ☐

Would you like to undertake a period of research? Yes ☐ No ☐

Would you be prepared to take time out of your training programme to undertake research? Yes ☐ No ☐

If yes, for how long?.....

If you have undertaken research, what did your project entail? How long did you spend doing research?  
.....

If you have not undertaken research, how do you respond to the following statements? (please circle)

I don't want to do any research Agree ☐ Not sure ☐ Disagree ☐

I don't want to prolong my training Agree ☐ Not sure ☐ Disagree ☐

I don't have a clear idea of which topic to research Agree ☐ Not sure ☐ Disagree ☐

I don't know how to get funding Agree ☐ Not sure ☐ Disagree ☐

I don't know how to develop an idea Agree ☐ Not sure ☐ Disagree ☐

I have no-one to supervise me Agree ☐ Not sure ☐ Disagree ☐

Other.....

Thank you for your time. If you would like to join an informal research forum, please add your name and email here:

Name: Email:

**Figure 1** Trainee survey questionnaire. LAS, locum appointment for service; LAT, locum appointment for training; SHO, senior house officer; SpR, specialist registrar.

**Table 1** Level of training among the respondents

Grade/year of training	No (%) of respondents
SpR year 1	20/122 (16)
SpR year 2	26/122 (21)
SpR year 3	21/122 (17)
SpR year 4	19/122 (16)
SpR year 5	18/122 (15)
Others*	18/122 (15)

SpR, specialist registrar.

\*Locum appointment for service, locum appointment for training, research fellow, year 3 senior house officer and general practitioner.

the BGS. The main objective of our survey was to examine the research activities and perceived barriers to doing research among higher specialist trainees in geriatric medicine. Our survey predated the Walport report.<sup>11</sup> We report the findings of this questionnaire survey and the ensuing efforts to deal with the barriers to carrying out research, which the survey highlighted.

### METHODS

We conducted a national postal survey (fig 1) of specialist registrars (SpRs) and trainee equivalent grades who were members of the BGS in the UK. The questionnaire was distributed with the BGS Newsletter in January 2004 and

**Table 2** Current research activity and aspirations among the participants of the survey

Current activity	No/response (%)	Mean (SD) year of study/response		p Value
		Positive	Negative	
Studying for a higher degree	46/121 (38)	3.1 (1.4)	2.8 (1.4)	0.24
Would like to obtain a higher degree	81/113 (72)	2.7 (1.3)	3.3 (1.4)	0.04
Currently involved in a research project	68/121 (56)	3.2 (1.3)	2.5 (1.3)	0.01
Previously involved in research projects	69/119 (58)	3.3 (1.4)	2.4 (1.2)	0.001
Would like to undertake a period of research	67/104 (64)	2.6 (1.3)	3.1 (1.4)	0.15
Prepared to take time out of training to do research	64/106 (60)	2.8 (1.3)	3.0 (1.4)	0.39
Up to 1 year	15/51 (29)			
1–2 years	25/51 (49)			
2–3 years	11/51 (22)			

their voluntary response was invited. Repeat distribution of the questionnaire took place at the 2004 BGS Spring Scientific Meeting to increase the response rate.

The respondents' research activity was assessed by asking whether they had obtained a postgraduate academic qualification, followed by a series of questions on present, past and future intended research activities. We asked whether respondents were prepared to take time out of their training programme to do research and if so for how long. For those who had not undertaken research, we provided several statements—for example, "I don't want to do any research"—and asked for a response on a three-point scale: agree—not sure—disagree. The focus of the questions was perceived barriers to doing research.

Data were analysed using SPSS V.11.5. Independent Student's *t* test was used to compare year of training with categories of question responses when relevant; only trainees in years 1–5 of SpR training were included for these comparisons.

## RESULTS

Of about 400 UK trainees to whom the questionnaire was distributed, we received 122 responses in total (response rate 30%). Not all respondents answered every question. Table 1 presents the frequency distribution of the respondents by their training level and grades. The number of years spent in SpR grade was more or less equally distributed among the respondents (median 16%, range 15–21%). Tables 2 and 3 show the results of the questionnaire. In all, 52% (63/121) of the respondents answered the questions on possible obstacles to research for those who have not undertaken research (table 3).

In all, 64% (67/104) of those who responded to the question "Would like to undertake a period of research" provided a positive response. Fifty one respondents indicated that they were prepared to take time out of their clinical training for research experience. Although current or previous involvement in research seemed to be positively

associated with increasing number of years at the SpR grade, the reverse pattern is observed for willingness to obtain a higher degree.

Statistically significant differences were found in terms of mean number of years spent in SpR grade for those who agreed and for those who disagreed for statements such as "No clear idea of topic to research", "Don't know how to get funding" and "Don't know how to develop idea". Although more senior SpRs disagreed, more junior SpRs agreed with these statements (table 3).

## DISCUSSION

The main finding from this survey is that there are many trainees in geriatric medicine who are interested in doing research, but who do not know how to plan, fund and execute a research project. Specifically, trainees often stated that they do not know how to obtain funding or to develop research ideas. It is encouraging that this level of interest in research is evident even in geriatric medicine, where prior experience in research is not essential for entry into higher specialist training. A substantial number of trainees in geriatric medicine wish to take dedicated time for this out of their clinical training programmes, and many wish to obtain a higher research degree.

Trainees who required assistance in issues such as project idea and funding were of a junior grade. This may be simply because trainees in more senior years have already had some opportunity to get involved in research projects, which may or may not prepare them to become future academics. In contrast, it seemed that more junior SpRs were more likely to wish to obtain a higher degree. These results suggest that there is a mismatch in the early years of training between the wish to undertake research and the skills and trainees' perceptions of their ability to undertake a period of research. Conversely, senior SpRs have a better idea of their ability to carry out research, but lack the time or inclination to do so. This suggests that there is a window of opportunity for targeted promotion of research activities that could

**Table 3** Frequency distribution of responses from 63 trainees who had not undertaken research at the time of survey

	Agree	Unsure	Disagree	Mean (SD) training year		p Value
				Agree	Disagree	
Do not want to do research	14/63 (22%)	13/63 (21%)	36/63 (57%)	2.7 (0.9)	2.2 (1.2)	0.21
Do not want to prolong training	23/62 (37%)	15/62 (24%)	24/62 (39%)	2.3 (1.2)	2.2 (1.4)	0.82
No clear idea of topic to research	42/60 (70%)	7/60 (12%)	11/60 (18%)	2.1 (1.2)	3.1 (1.2)	0.03
Do not know how to get funding	38/61 (62%)	10/61 (16%)	13/61 (21%)	2.1 (1.2)	3.1 (1.0)	0.01
Do not know how to develop an idea	39/61 (64%)	9/61 (15%)	13/61 (21%)	2.0 (1.1)	3.4 (1.0)	0.001
No one to supervise	21/61 (34%)	20/61 (33%)	20/61 (33%)	2.7 (1.4)	2.7 (1.0)	0.89

potentially attract a substantial number of trainees to pursue research activity and possibly an academic career.

With a response rate of about 30% in one medical subspecialty, this survey should not be viewed as a census of research activity among trainees in higher medical education. It does, however, give useful information as to how we might help promote academic medicine among trainees. Although Paice *et al*<sup>12</sup> examined the SpRs' self-reported satisfaction with regard to their clinical training before and after the introduction of the Calman reforms, the trainees' perceived needs in or obstacles to getting adequate research training during their higher medical education were not assessed. Some authors have provided general guidance for research training for junior doctors,<sup>13</sup> whereas others have concentrated on the magnitude of the problem with regard to academic medicine in the context of Calman training.<sup>14</sup> However, specific strategies to promote research among the higher specialist medical trainees have not been reported.

Prompted in part by the results of this survey, the BGS implemented a series of initiatives to remove some of the barriers to performing research.<sup>2</sup> These include a series of "how to" articles published in the BGS newsletter and on the BGS website, "How I got into research" articles written by research active SpRs in geriatric medicine, "Meet the Professors" sessions at BGS national conference, and a directory of UK geriatric academic research centres with contact names and a description of research opportunities. A web-ring for mentoring and exchanging views among SpRs interested in research has also undergone a trial, and the criteria for accepting posters at the BGS national conference has been modified to encourage trainees to prepare and present audit projects to give a flavour of the presentation process.

Among junior doctors, the wish to pursue an academic career has been shown to be positively related to the challenge of research and the intellectual environment of research units.<sup>15</sup> However, not all trainees will wish to undertake time out of clinical training to do research. Nevertheless, it is important to ensure that opportunities for research can be integrated with clinical duties for those unwilling to take time out so that adequate research training is provided during a trainee's higher medical education. Moreover, exposure to a period of research training within a clinical programme can be a springboard for exploring more substantial options. Furthermore, creation of a research-oriented culture among the future clinical leaders is, in our opinion, as important as recruiting future academic leaders, which will help to create an environment where both can flourish.

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## REFERENCES

- 1 **Clarke J**, Smith R. BMJ Publishing Group to launch an international campaign to promote academic medicine. Please join us. *BMJ* 2003;**327**:1001-2.
- 2 **MacLulich AMJ**, Witham MD, Myint PK. Developing a research website for trainees. *BMJ Career Focus* 2005;**330**:98.
- 3 **Bell J**. Resuscitating clinical research in the United Kingdom. *BMJ* 2003;**327**:1041-3.
- 4 **Hopper AD**, Atkinson R, Prtak L, *et al*. Research trends in British gastroenterology: publication rates in newly appointed NHS consultants over a nine year period. *Gut* 2004;**53**:913.
- 5 **Smith T**, Sime P. A survey of clinical academic staffing levels in UK medical and dental schools. London: Council of Heads of Medical Schools, 2001.
- 6 **Medical Research and the NHS Reforms**. House of Lords Select Committee on Science and Technology, HL Paper 12. London: HMSO, 1995.
- 7 **Anonymous**. UK paediatric clinical research under threat. *Arch Dis Child* 1997;**76**:1-3.
- 8 **Ageing, Scientific Aspects**. House of Lords Select Committee on Science and Technology, HL Paper 20. London: HMSO, 2005.
- 9 **Stout R**. Academic geriatric medicine. London: British Geriatric Society, 2002. [http://www.bgs.org.uk/Publications/Reference%20Material/ref2\\_acadmedicine.htm](http://www.bgs.org.uk/Publications/Reference%20Material/ref2_acadmedicine.htm) (accessed 28 Sep 2006).
- 10 **Jackson SD**. Future of academic geriatric medicine. London: British Geriatric Society, 2004. [http://www.bgsnet.org.uk/Feb04%20NL/12\\_strategy.htm](http://www.bgsnet.org.uk/Feb04%20NL/12_strategy.htm) (accessed 28 Aug 2006).
- 11 **Report of the Academic Careers Sub-Committee of Modernising Medical Careers and the UK Clinical Research Collaboration**. Medically- and dentally-qualified academic staff: recommendations for training the researchers and educators of the future, London, March 2005.
- 12 **Paice E**, Aitken M, Cowan G, *et al*. Trainee satisfaction before and after the Calman reforms of specialist training: questionnaire survey. *BMJ* 2000;**320**:832-6.
- 13 **Sanders DS**, Azmy IA. A rough guide to research for senior house officers and specialist registrars. *Hosp Med* 2003;**64**:236-40.
- 14 **Mather HM**. The research plans of specialist registrars: the RCP SpR questionnaire survey. *J R Coll Physicians Lond* 2000;**34**:456-7.
- 15 **Goldacre M**, Stear S, Richards R, *et al*. Junior doctor's views about careers in academic medicine. *Med Educ* 1999;**33**:318-26.